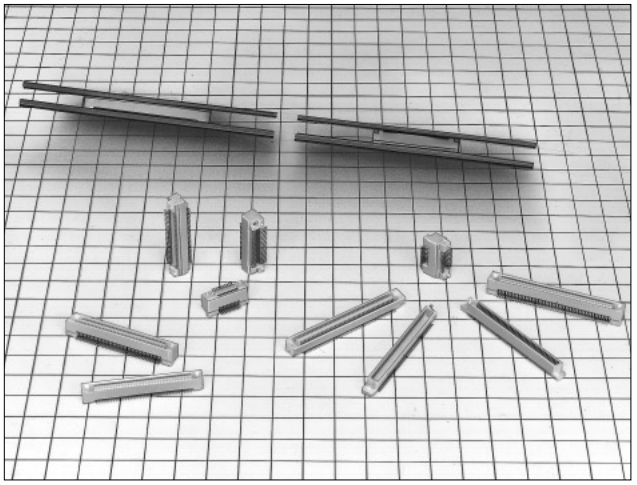
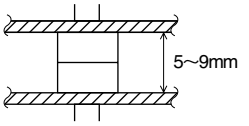
查询FX6-100P-0.8SV供应商

# 0.8mm Pitch Stacking Height 5 to 9mm Connector

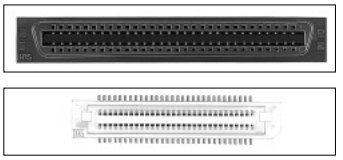
## FX6 Series



**Stacking Height: 5 to 9mm**




**Mounting area 50% OFF, compared with the half pitch connector**



Half pitch connector
(FX2 series)

FX6 series
(If compared with 60 contacts)

## ■Features

### 1. Stacking Height 5 to 9mm

The board to board stacking height can be set at every millimeter between 5 and 9mm.

### 2. Effective Contact Length 1.7mm

Despite the low profile type connector, the connector has the 1.7mm long effective contact length and provides a margin sufficient to contact.

### 3. Mating Guide

The self-alignment for mating action exhibits a high guide level at ±1mm, and makes the mating process easier by providing the guide rib.

### 4. Automatic Mounting

The standard packaging specification specifies the stick package, considering the automatic mount, while the emboss package can also correspond to the connector with less than 80 contacts. (However, the product is limited to 80 contacts.)

### 5. SMT Coplanarity

The lead coplanarity on the SMT soldered area is maintained with the high accuracy of less than 0.1mm.

## ■Applications

Note PC, business equipments such as handy terminals, and other equipment which require miniaturization or light-weight.

## ■Product Specifications

| | | | |
|---|---|---|---|
| Rating | Current rating 0.5A<br>Voltage rating 100V AC | Operating Temperature Range -55℃ to +85℃ Note 1.<br>Operating Humidity Range 40% to 80% | Storage Temperature Range -10℃ to +60℃ Note 2.<br>Storage Humidity Range 40% to 70% |

| Item | Specification | Condition |
|---|---|---|
| 1. Insulation Resistance | 100M ohms min | 250V DC |
| 2. Withstanding voltage | No flashover or insulation breakdown. | 300V AC/1 minute |
| 3. Contact Resistance | 40m ohms max. | 100mA |
| 4. Vibration | No electrical discontinuity of 1μs or more | Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions. |
| 5. Humidity (Steady state) | Contact resistance: 50m ohms max.<br>Insulation resistance: 100m ohms min. | 96 hours at temperature of 40℃ and humidity of 90% to 95% |
| 6. Temperature Cycle | Contact resistance: 50m ohms max:<br>Insulation resistance: 100m ohms min. | (-55℃: 30 minutes 15 to 35℃: 2 to 3 minutes<br>85℃: 30 minutes 15 to 35℃: 2 to 3minutes)5 cycles |
| 7. Durability (Mating/un-mating) | Contact resistance: 50m ohms max. | 100 cycles |
| 8. Resistance to Soldering heat | No deformation of components affecting performance. | Reflow: At the recommended temperature profile |
| | | Manual soldering: 300℃ for 3 seconds |

Note 1: Includes temperature rise caused by current flow.
Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

## ■Material

| Part | Material | Finish | | Remarks |
|---|---|---|---|---|
| Insulation | PPS | Light brown | | UL94V-0 |
| Header Contact | Phosphor bronze | Contact area | Gold plated | ———— |
| Receptacle Contact | | Lead area | Tin-lead plated | ———— |

Note : The black dots on the insulater will not affect performance.

## ■Ordering Information

**FX6 (A) - ✻ P - 0.8 SV 1 (21)**
❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽

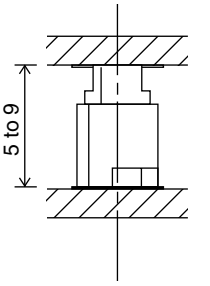
| | |
|---|---|
| ❶ Series Name: FX6 | ❻ Contact type SV: Board vertical type |
| ❷ Blank: With boss<br>A : Without boss | ❼ Product Height Variable Blank : Standard, 1: +1mm<br>2 : +2mm |
| ❸ Number of Contacts : 20,40,50,60,80,100 | ❽ Packaging Style<br>Blank : Stick packaging (No pick & place tape)<br>(21) : Stick packaging (Pick & place tape)<br>(22) : Embossed tape packaging (No pick & place tape)<br>(23) : Embossed tape packaging (Pick & place Stick tape) |
| ❹ Connector Type<br>P: Header<br>S: Receptacle | |
| ❺ Contact Pitch: 0.8mm | |

## ■Stacking Height Variation

Unit: mm

| | FX6(A)-✻S-0.8SV | FX6(A)-✻S-0.8SV2 |
|---|---|---|
| FX6(A)-※P-0.8SV | 5 | 7 |
| FX6(A)-※P-0.8SV1 | 6 | 8 |
| FX6(A)-※P-0.8SV2 | 7 | 9 |

(✻ indicates 20, 40, 50, 60, 80, and 100 contacts.)

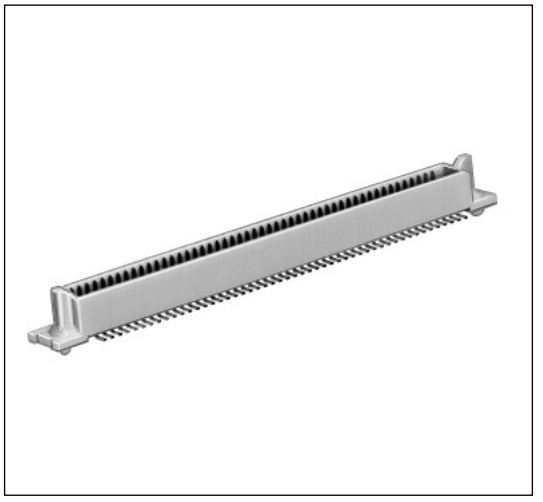


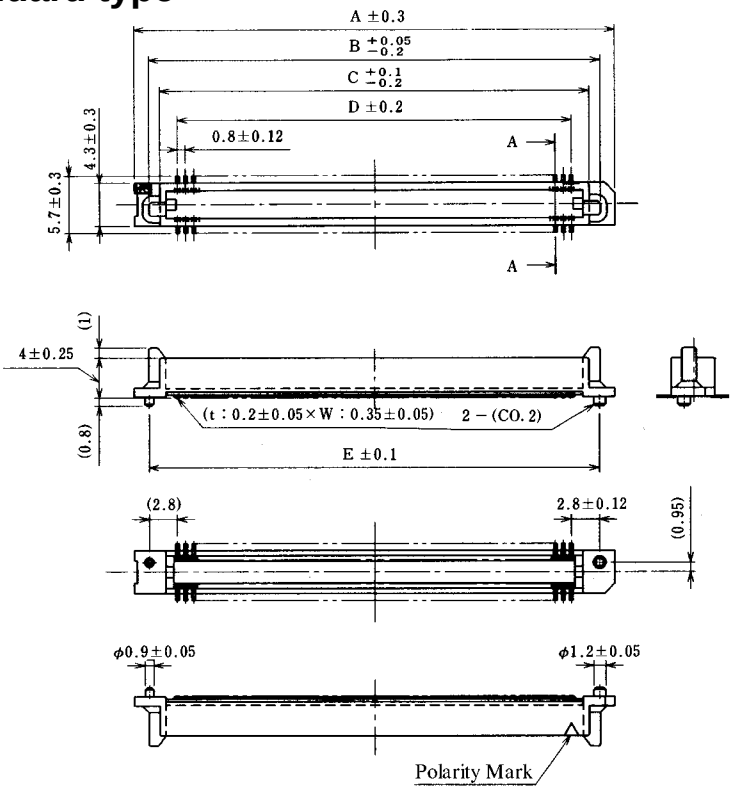

## ■Packaging Type

| Packaging Type | Number of Contacts | 20 contacts | 40 contacts | 50 contacts | 60contacts | 80 contacts | 100 contacts |
|---|---|---|---|---|---|---|---|
| Stick Packaging | Packaged Product Pieces | 33 pieces | 22 pieces | 19 pieces | 16 pieces | 13 pieces | 11 pieces |
| | Sales Unit | Order by doubling the number of pieces contained in the product. (Example) In case of 20 contacts,33 pieces, 66 pieces,... | | | | | |
| Embossed Tape Packaging | Tape Width | 24mm | 44mm | 44mm | 44mm | 56mm | |
| | Product Pitch | 12mm | | | | | |
| | Emboss Reel Diameter | FX6(A)−✻S-0.8SV ·····ϕ330mm<br>FX6(A)−✻P−0.8SV.FX6(A)−✻S-0.8SV2 ·····ϕ360mm<br>FX6(A)−✻P−0.8SV1.FX6(A)−✻P-0.8SV2 ·····ϕ380mm | | | | | |
| | Packaged Product Pieces | 1000 pieces packaged per reel | | | | | |
| | Sales Unit | Per reel | | | | | |

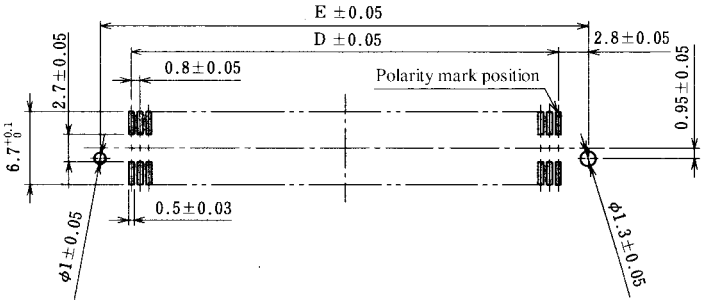
## With Boss Type

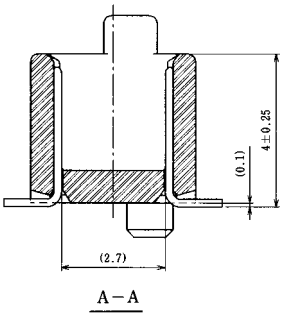
## ■Header-Stacking Height: Standard type






## ◆PCB mounting pattern



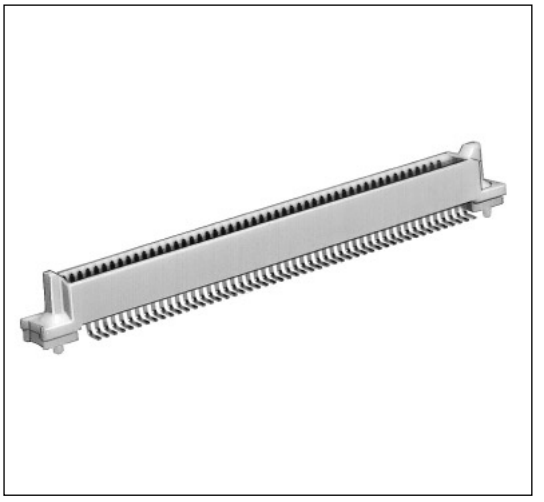

Unit: mm

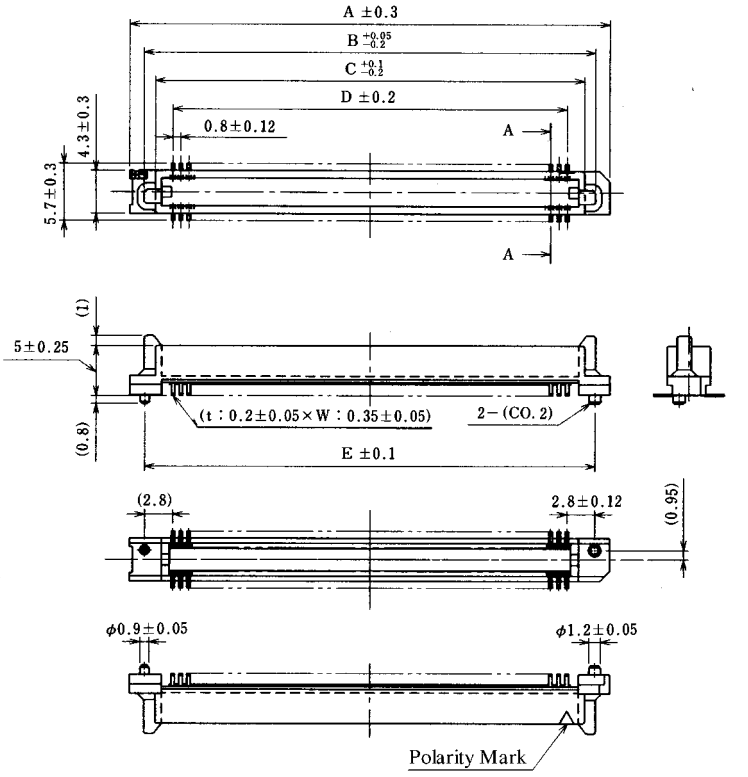
| Part Number | CL No. | Number of Contacts | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| FX6- 20P-0.8SV | 576-0001-3 | 20 | 15.8 | 12.9 | 10.7 | 7.2 | 12.8 |
| FX6- 40P-0.8SV | 576-0003-9 | 40 | 23.8 | 20.9 | 18.7 | 15.2 | 20.8 |
| FX6- 50P-0.8SV | 576-0004-1 | 50 | 27.8 | 24.9 | 22.7 | 19.2 | 24.8 |
| FX6- 60P-0.8SV | 576-0005-4 | 60 | 31.8 | 28.9 | 26.7 | 23.2 | 28.8 |
| FX6- 80P-0.8SV | 576-0007-0 | 80 | 39.8 | 36.9 | 34.7 | 31.2 | 36.8 |
| FX6-100P-0.8SV | 576-0008-2 | 100 | 47.8 | 44.9 | 42.7 | 39.2 | 44.8 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer.
Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces).
(Refer to the delivery form item on page A214 for details.)

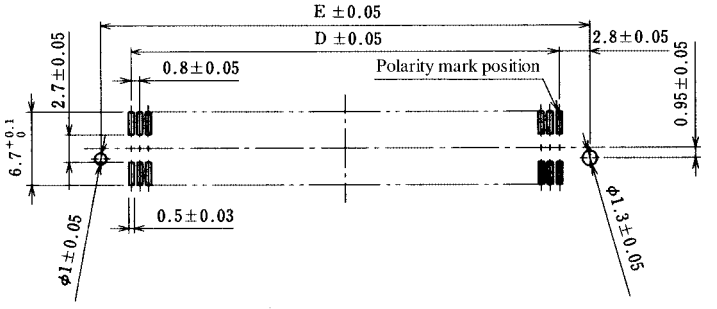
## With Boss Type

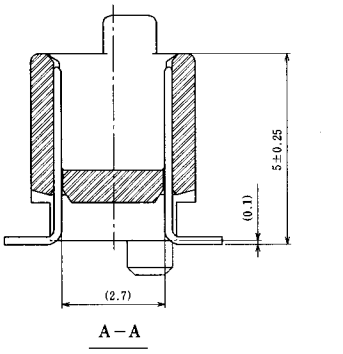
## ■Header-Stacking Height: Standard type






## ◆PCB mounting pattern



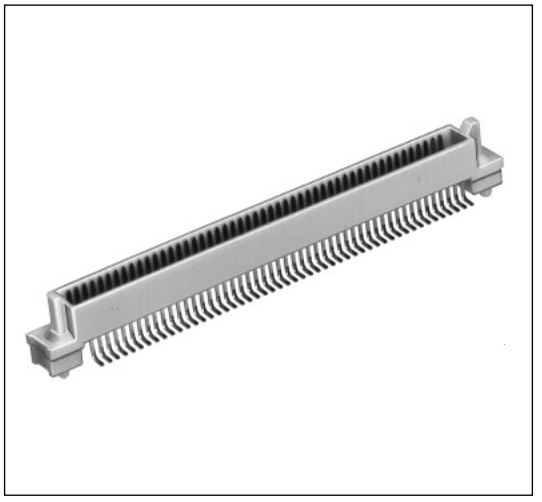

Unit: mm

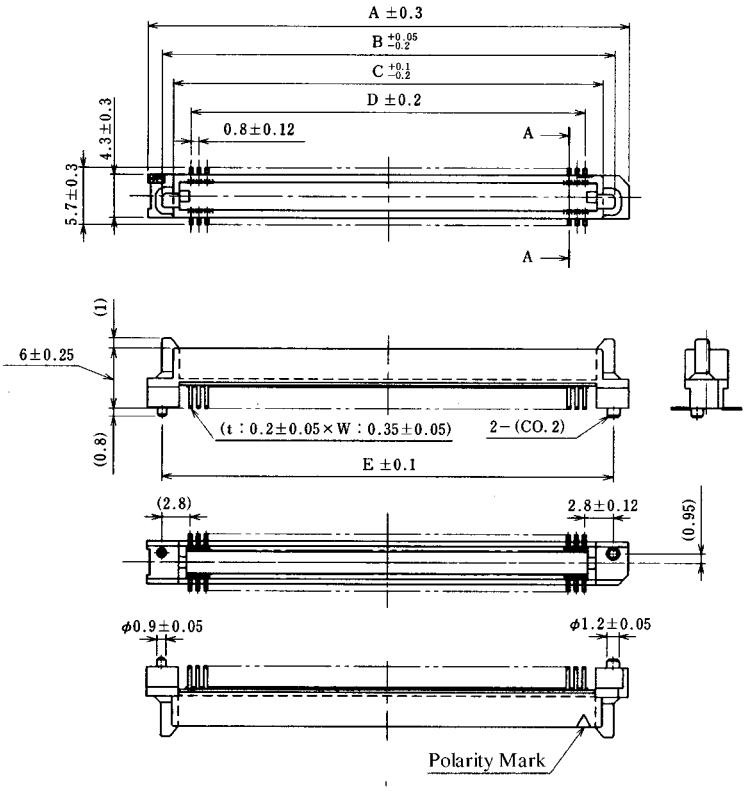
| Part Number | CL No. | Number of Contacts | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| FX6- 20P-0.8SV1 | 576-0021-0 | 20 | 15.8 | 12.9 | 10.7 | 7.2 | 12.8 |
| FX6- 40P-0.8SV1 | 576-0023-6 | 40 | 23.8 | 20.9 | 18.7 | 15.2 | 20.8 |
| FX6- 50P-0.8SV1 | 576-0024-9 | 50 | 27.8 | 24.9 | 22.7 | 19.2 | 24.8 |
| FX6- 60P-0.8SV1 | 576-0025-1 | 60 | 31.8 | 28.9 | 26.7 | 23.2 | 28.8 |
| FX6- 80P-0.8SV1 | 576-0027-7 | 80 | 39.8 | 36.9 | 34.7 | 31.2 | 36.8 |
| FX6-100P-0.8SV1 | 576-0028-0 | 100 | 47.8 | 44.9 | 42.7 | 39.2 | 44.8 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

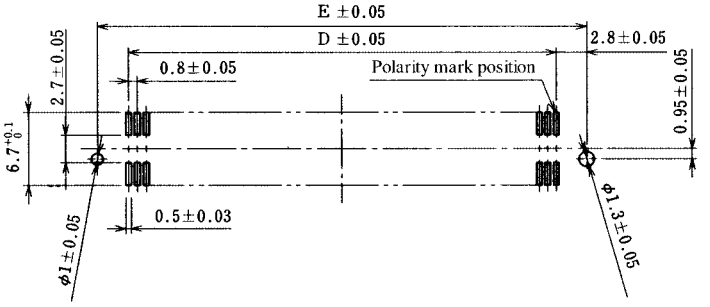
## With Boss Type

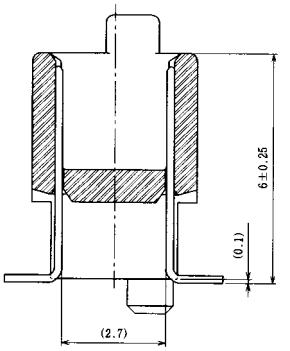
## ■Header-Stacking Height: Standard+2mm type






## ◆PCB mounting pattern



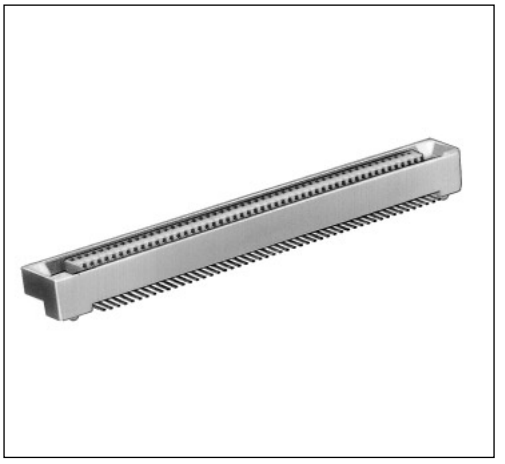

Unit: mm

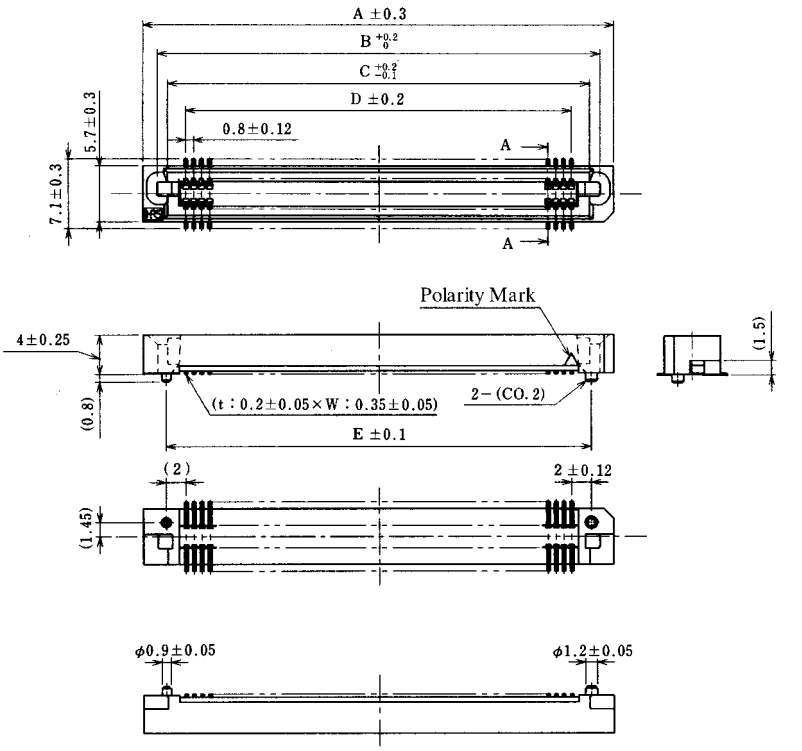
| Part Number | CL No. | Number of Contacts | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| FX6- 20P-0.8SV2 | 576-0041-8 | 20 | 15.8 | 12.9 | 10.7 | 7.2 | 12.8 |
| FX6- 40P-0.8SV2 | 576-0043-3 | 40 | 23.8 | 20.9 | 18.7 | 15.2 | 20.8 |
| FX6- 50P-0.8SV2 | 576-0044-6 | 50 | 27.8 | 24.9 | 22.7 | 19.2 | 24.8 |
| FX6- 60P-0.8SV2 | 576-0045-9 | 60 | 31.8 | 28.9 | 26.7 | 23.2 | 28.8 |
| FX6- 80P-0.8SV2 | 576-0047-4 | 80 | 39.8 | 36.9 | 34.7 | 31.2 | 36.8 |
| FX6-100P-0.8SV2 | 576-0048-7 | 100 | 47.8 | 44.9 | 42.7 | 39.2 | 44.8 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer.
Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces).
(Refer to the delivery form item on page A214 for details.)

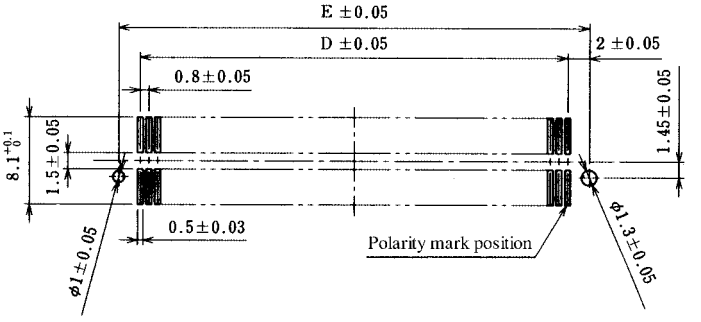
## With Boss Type

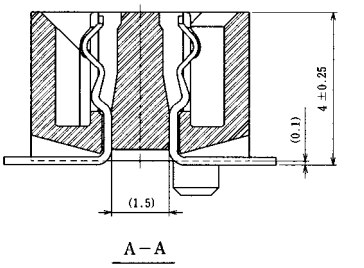
## ■Receptacle-Stacking Height: Standard type






## ◆PCB mounting pattern



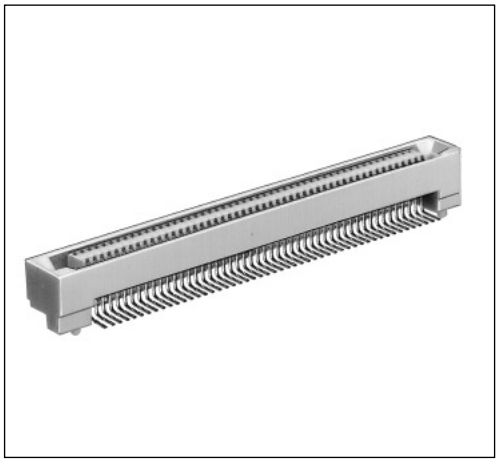

Unit: mm

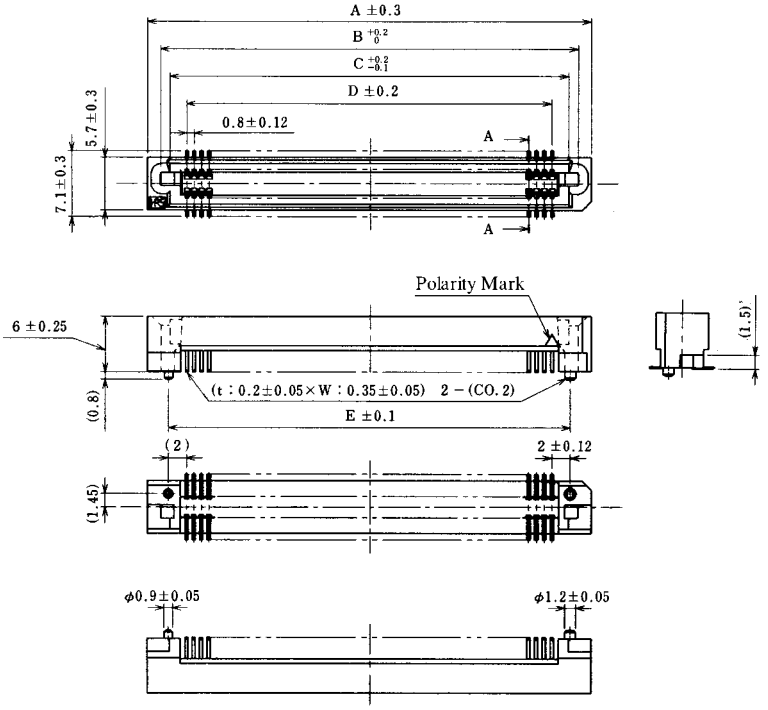
| Part Number | CL No. | Number of Contacts | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| FX6- 20S-0.8SV | 576-0101-8 | 20 | 15.8 | 12.95 | 10.9 | 7.2 | 11.2 |
| FX6- 40S-0.8SV | 576-0103-3 | 40 | 23.8 | 20.95 | 18.9 | 15.2 | 19.2 |
| FX6- 50S-0.8SV | 576-0104-6 | 50 | 27.8 | 24.95 | 22.9 | 19.2 | 23.2 |
| FX6- 60S-0.8SV | 576-0105-9 | 60 | 31.8 | 28.95 | 26.9 | 23.2 | 27.2 |
| FX6- 80S-0.8SV | 576-0107-4 | 80 | 39.8 | 36.95 | 34.9 | 31.2 | 35.2 |
| FX6-100S-0.8SV | 576-0108-7 | 100 | 47.8 | 44.95 | 42.9 | 39.2 | 43.2 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

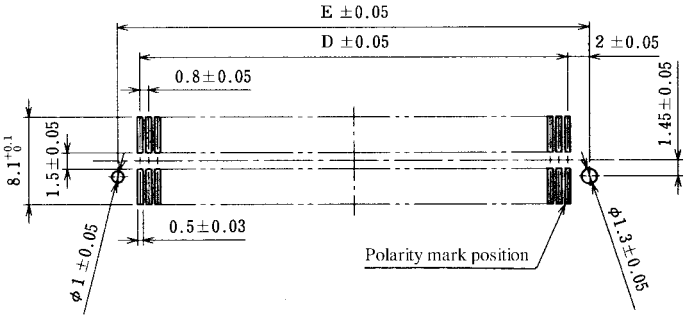
## With Boss Type

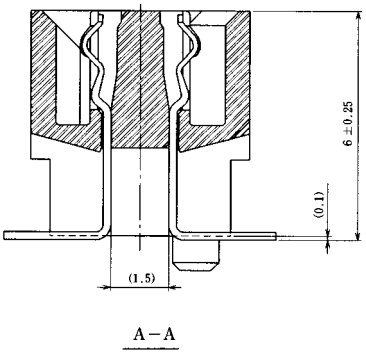
## ■Receptacle-Stacking Height: Standard+2mm type






## ◆PCB mounting pattern



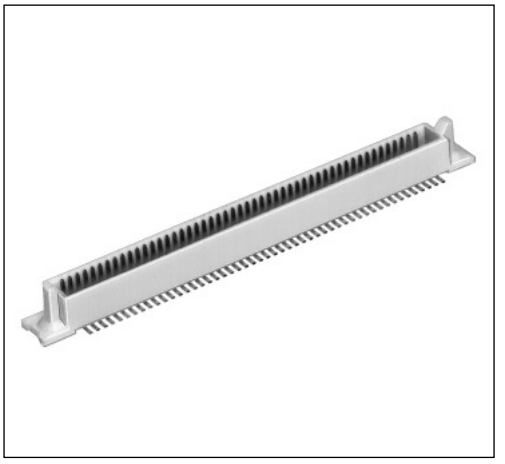

Unit: mm

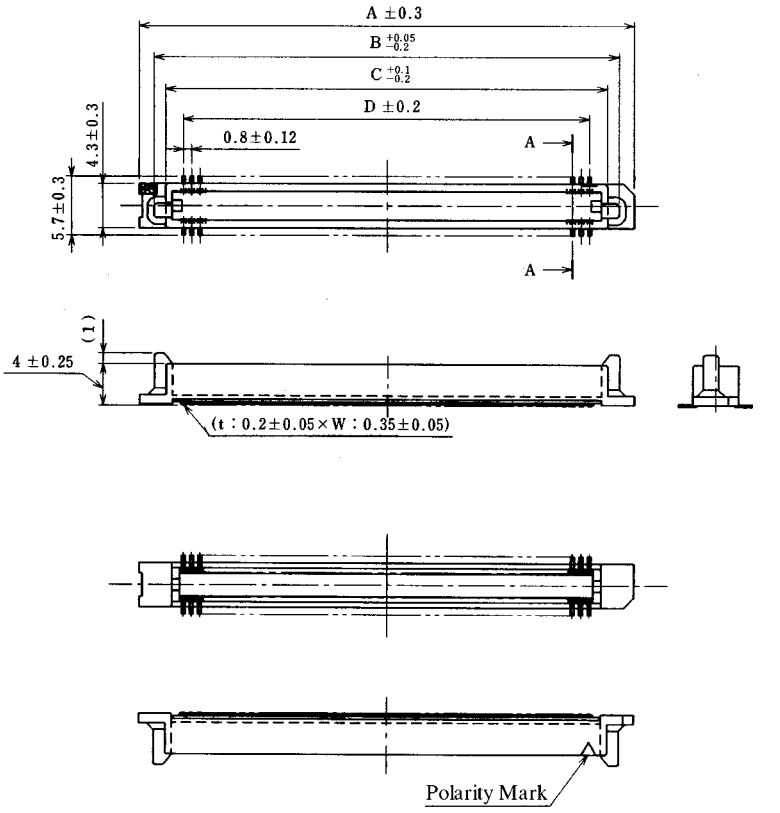
| Part Number | CL No. | Number of Contacts | A | B | C | D | E |
|---|---|---|---|---|---|---|---|
| FX6- 20S-0.8SV2 | 576-0121-5 | 20 | 15.8 | 12.95 | 10.9 | 7.2 | 11.2 |
| FX6- 40S-0.8SV2 | 576-0123-0 | 40 | 23.8 | 20.95 | 18.9 | 15.2 | 19.2 |
| FX6- 50S-0.8SV2 | 576-0124-3 | 50 | 27.8 | 24.95 | 22.9 | 19.2 | 23.2 |
| FX6- 60S-0.8SV2 | 576-0125-6 | 60 | 31.8 | 28.95 | 26.9 | 23.2 | 27.2 |
| FX6- 80S-0.8SV2 | 576-0127-1 | 80 | 39.8 | 36.95 | 34.9 | 31.2 | 35.2 |
| FX6-100S-0.8SV2 | 576-0128-4 | 100 | 47.8 | 44.95 | 42.9 | 39.2 | 43.2 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

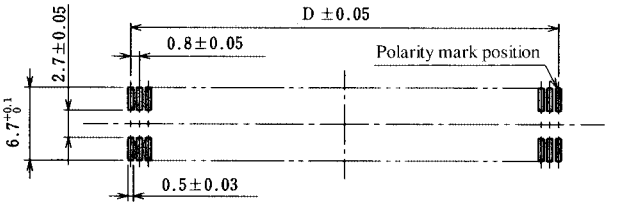
## Without Boss Type

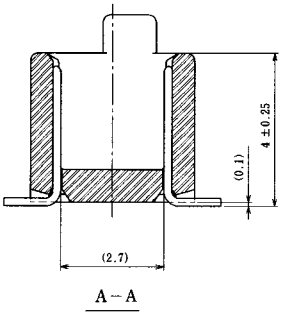
### ■Header-Stacking Height: Standard type






### ◆PCB mounting pattern



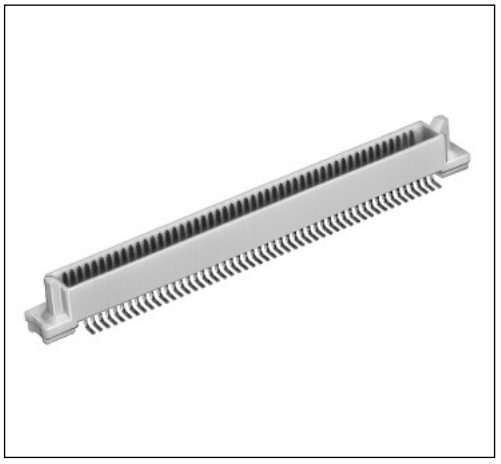

Unit: mm

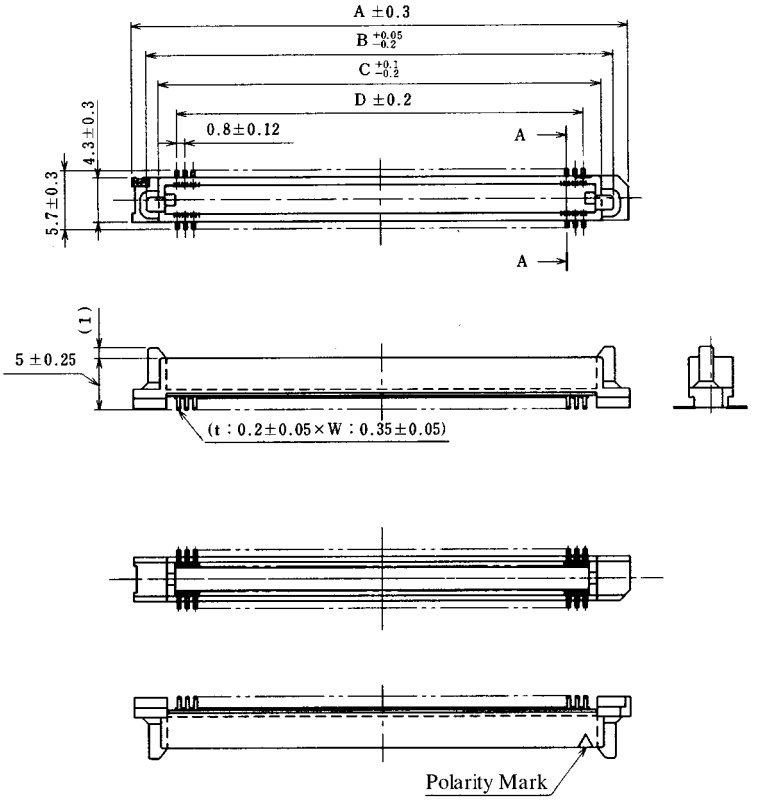
| Part Number | CL No. | Number of Contacts | A | B | C | D |
|---|---|---|---|---|---|---|
| FX6A- 20P-0.8SV | 576-0201-2 | 20 | 15.8 | 12.9 | 10.7 | 7.2 |
| FX6A- 40P-0.8SV | 576-0203-8 | 40 | 23.8 | 20.9 | 18.7 | 15.2 |
| FX6A- 50P-0.8SV | 576-0204-0 | 50 | 27.8 | 24.9 | 22.7 | 19.2 |
| FX6A- 60P-0.8SV | 576-0205-3 | 60 | 31.8 | 28.9 | 26.7 | 23.2 |
| FX6A- 80P-0.8SV | 576-0207-9 | 80 | 39.8 | 36.9 | 34.7 | 31.2 |
| FX6A-100P-0.8SV | 576-0208-1 | 100 | 47.8 | 44.9 | 42.7 | 39.2 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

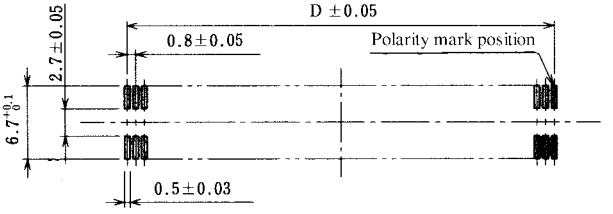
## Without Boss Type

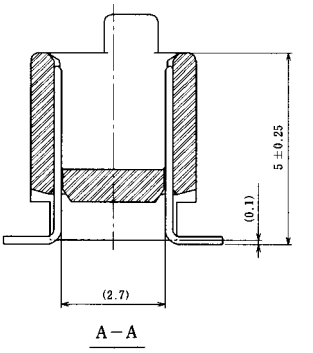
## ■Header-Stacking Height: Standard+1 type






## ◆PCB mounting pattern



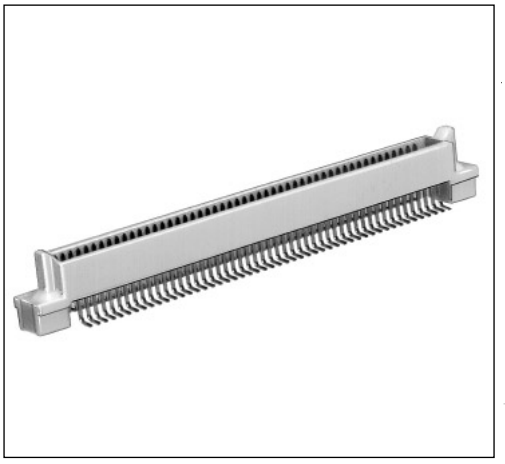

Unit: mm

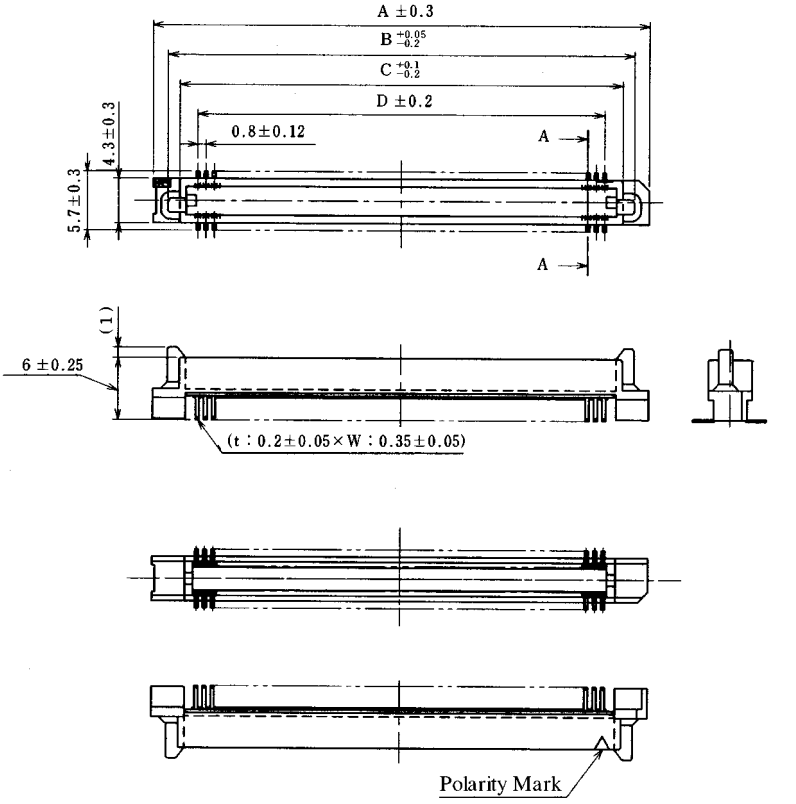
| Part Number | CL No. | Number of Contacts | A | B | C | D |
|---|---|---|---|---|---|---|
| FX6A- 20P-0.8SV1 | 576-0221-0 | 20 | 15.8 | 12.9 | 10.7 | 7.2 |
| FX6A- 40P-0.8SV1 | 576-0223-5 | 40 | 23.8 | 20.9 | 18.7 | 15.2 |
| FX6A- 50P-0.8SV1 | 576-0224-8 | 50 | 27.8 | 24.9 | 22.7 | 19.2 |
| FX6A- 60P-0.8SV1 | 576-0225-0 | 60 | 31.8 | 28.9 | 26.7 | 23.2 |
| FX6A- 80P-0.8SV1 | 576-0227-6 | 80 | 39.8 | 36.9 | 34.7 | 31.2 |
| FX6A-100P-0.8SV1 | 576-0228-9 | 100 | 47.8 | 44.9 | 42.7 | 39.2 |

Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

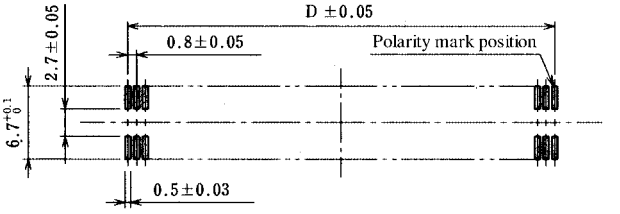
## Without Boss Type

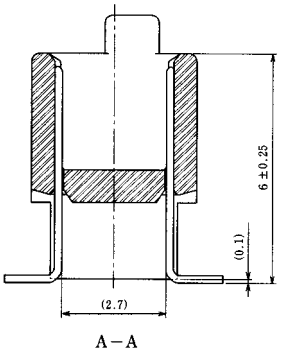
## ■Receptacle-Stacking Height: Standard+2mm type






## ◆PCB mounting pattern



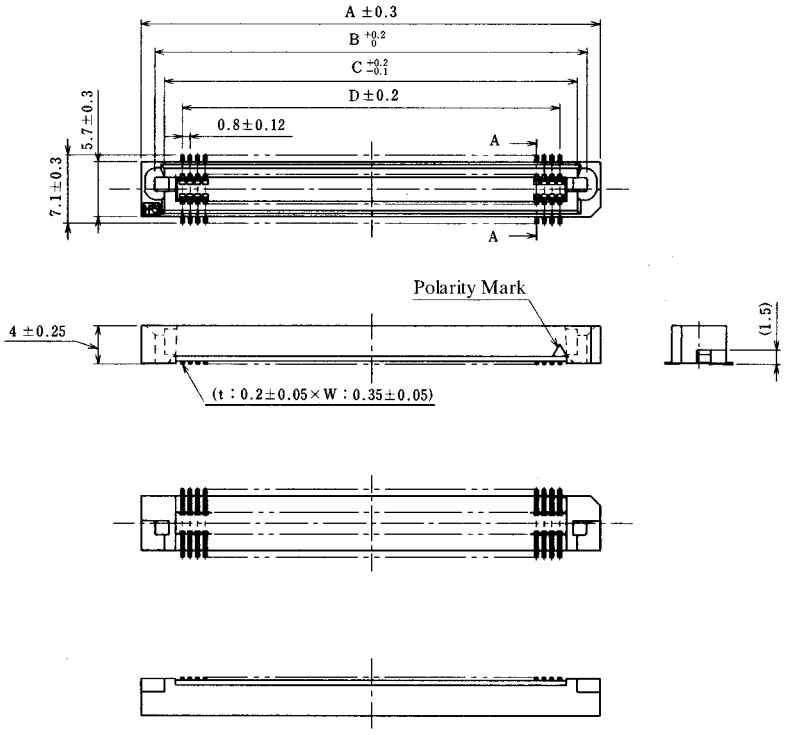

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D |
|---|---|---|---|---|---|---|
| FX6A- 20P-0.8SV2 | 576-0241-7 | 20 | 15.8 | 12.9 | 10.7 | 7.2 |
| FX6A- 40P-0.8SV2 | 576-0243-2 | 40 | 23.8 | 20.9 | 18.7 | 15.2 |
| FX6A- 50P-0.8SV2 | 576-0244-5 | 50 | 27.8 | 24.9 | 22.7 | 19.2 |
| FX6A- 60P-0.8SV2 | 576-0245-8 | 60 | 31.8 | 28.9 | 26.7 | 23.2 |
| FX6A- 80P-0.8SV2 | 576-0247-3 | 80 | 39.8 | 36.9 | 34.7 | 31.2 |
| FX6A-100P-0.8SV2 | 576-0248-6 | 100 | 47.8 | 44.9 | 42.7 | 39.2 |

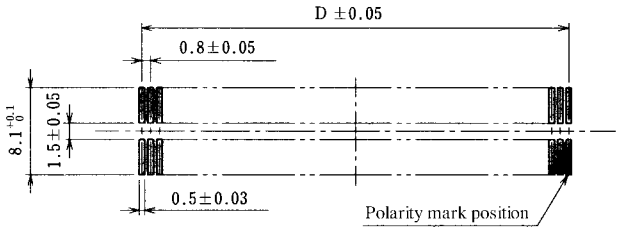
Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

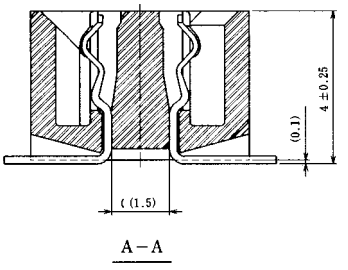
## Without Boss Type

## ■Receptacle-Stacking Height: Standard type




## ◆PCB mounting pattern



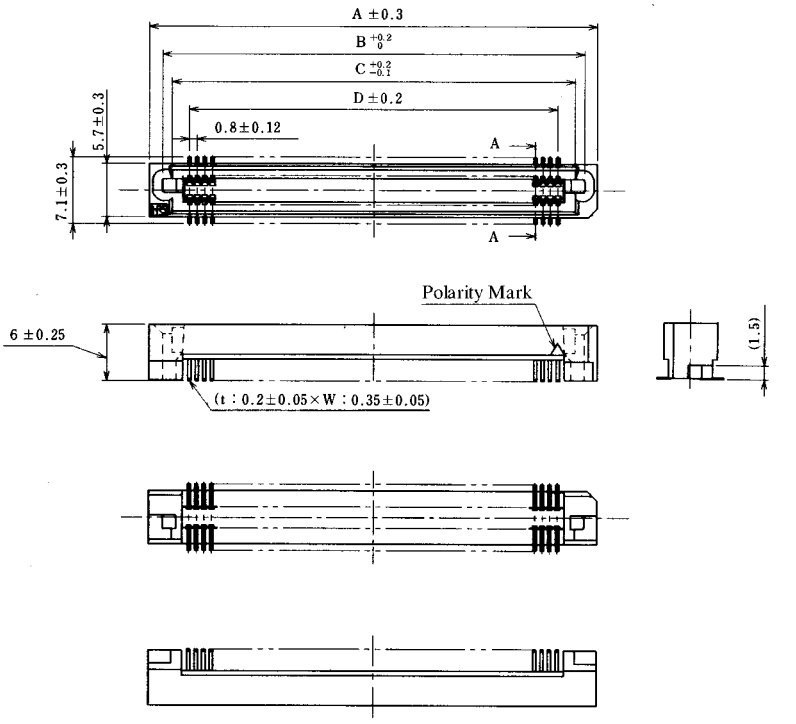

Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D |
|---|---|---|---|---|---|---|
| FX6A- 20S-0.8SV | 576-0301-7 | 20 | 15.8 | 12.95 | 10.9 | 7.2 |
| FX6A- 40S-0.8SV | 576-0303-2 | 40 | 23.8 | 20.95 | 18.9 | 15.2 |
| FX6A- 50S-0.8SV | 576-0304-5 | 50 | 27.8 | 24.95 | 22.9 | 19.2 |
| FX6A- 60S-0.8SV | 576-0305-8 | 60 | 31.8 | 28.95 | 26.9 | 23.2 |
| FX6A- 80S-0.8SV | 576-0307-3 | 80 | 39.8 | 36.95 | 34.9 | 31.2 |
| FX6A-100S-0.8SV | 576-0308-6 | 100 | 47.8 | 44.95 | 42.9 | 39.2 |

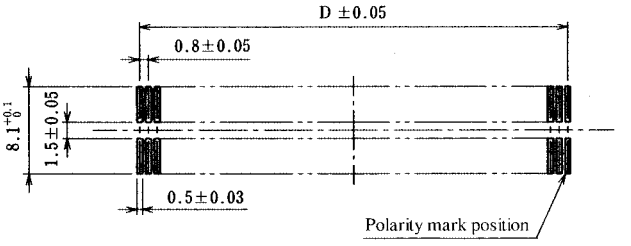
Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

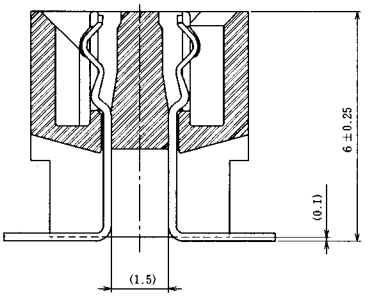
## Without Boss Type

## ■Receptacle-Stacking Height: Standard+2mm type




## ◆PCB mounting pattern




Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D |
|---|---|---|---|---|---|---|
| FX6A- 20S-0.8SV2 | 576-0321-4 | 20 | 15.8 | 12.95 | 10.9 | 7.2 |
| FX6A- 40S-0.8SV2 | 576-0323-0 | 40 | 23.8 | 20.95 | 18.9 | 15.2 |
| FX6A- 50S-0.8SV2 | 576-0324-2 | 50 | 27.8 | 24.95 | 22.9 | 19.2 |
| FX6A- 60S-0.8SV2 | 576-0325-5 | 60 | 31.8 | 28.95 | 26.9 | 23.2 |
| FX6A- 80S-0.8SV2 | 576-0327-0 | 80 | 39.8 | 36.95 | 34.9 | 31.2 |
| FX6A-100S-0.8SV2 | 576-0328-3 | 100 | 47.8 | 44.95 | 42.9 | 39.2 |

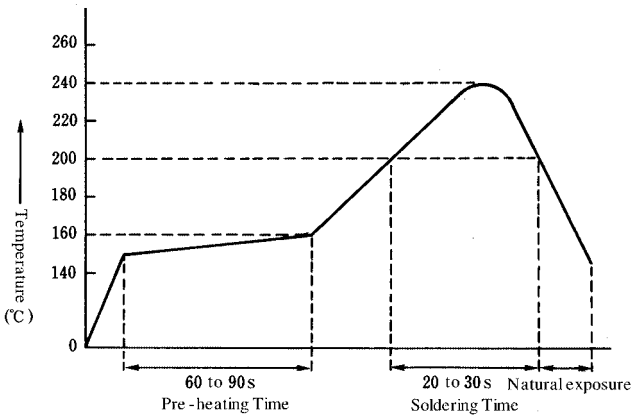
Note:Determine a quantity of the stick package product for delivery, multiplying the insertion pieces per contact number by an integer. Please make sure that a quantity of the stick package product for delivery is determined per reel (1000 pieces). (Refer to the delivery form item on page A214 for details.)

## ◆Precautions

### 1. Tolerance Clearance on Mating Side

The effective contact length of the product is set to 1.7mm. Please use the products as to set the clearance within 1.0mm between the header and the receptacle in the mating process.

### 2. Mounting Temperature Profile (Reference)




Applicable Conditions

| | |
|---|---|
| Reflow system | :IR reflow |
| Solder | :Paste type 63 Sn/37 Pb (Flux content 11 wt%) |
| Test board | :Glass epoxy 110mm x 55mm x 1.6 mm |
| Metal mask thickness | :0.15 mm |

Recommended temperature profile.
The temperature may be slightly changed according to the solder paste type and amount.

### 3. Board to Board Size

The board to board size of the male/female connector shown in the application pattern doesn't include the solder paste thickness. Thus, after the connector is mounted on the board, consider that the board to board size will be widened in proportion to the solder paste thickness.